

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022897**Date Inspected:** 21-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspector: Mr. Cui Zheng Hua

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Bay 14

ZPMC presented QA personnel with "Notification of Witness Inspection" document number 8894 item 1 that stated ZPMC was requesting Caltrans to perform visual (VT) and magnetic particle (MT) inspections of OBG segment 14E stiffener plate and floor beam welds in Bay 14. This QA Inspector performed random MT and VT inspections of the following welds: SEG3019V-24, 25, 26, 27, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 168, 170, 172, 174, 176, 178, 180, SEG3019W-51, 53, 55, 57, 59, 61, 63, 65, 67, 85, 87, 89, 91, 93, 95, 97, 99, 101 and SEG3019T-13, 17, 21, 25, 29, 33, 37, 41, 45, 11, 15, 19, 23, 27, 31, 35, 39, 43. The terminations of welds SEG3019V-34, 36, 38, 48 and SEG3019W-55, 61 were visually unacceptable due to underfill and or overlap. This QA Inspector showed ABF Inspector Mr. Zhang Qi Li these visually unacceptable areas and he informed this QA Inspector that no ZPMC workers were available to resolve these problems this shift and that he will inform dayshift personnel to fix these problems. For additional information on these inspections see this QA Inspector's TL6028 magnetic particle test report and the photograph below.

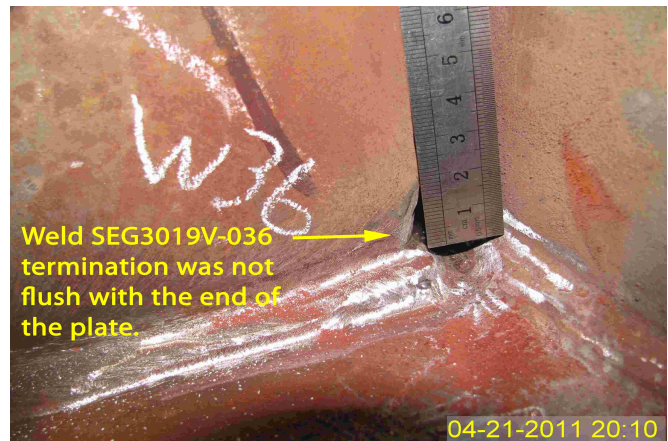
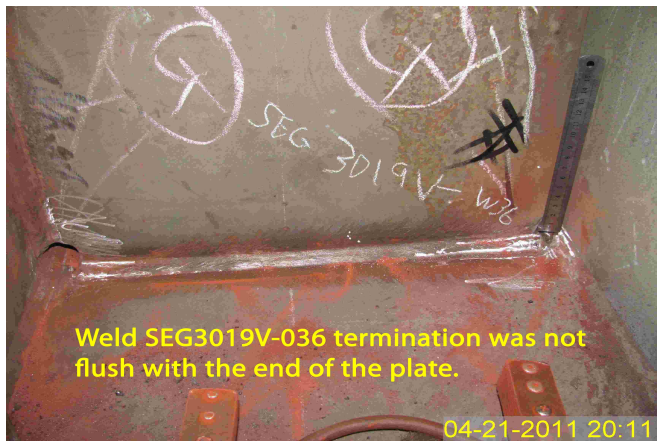
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This QA Inspector observed ZPMC welder Mr. Chen Ren Zhi, stencil 058087 used shielded metal arc welding procedure WPS-345-SMAW-1G(1F)-FCM-Repair-1 to make a weld repair of ultrasonic rejections to OBG segment 14E weld SEG3019Z-078. ZPMC QC informed this QA Inspector that weld repair document B-WR-20572 documents this weld repair. This QA Inspector measured a welding current of approximately 190 amps the base material had been preheated with a torch and Mr. Chen Ren Zhi appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Changfa, stencil 058102 used shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-FCM-Repair-1 to make repairs of OBG segment 14E weld SEG3019B-008. ZPMC QC informed this QA Inspector that critical weld repair document B-CWR-2924 documents this weld had been ultrasonically rejected. This QA Inspector observed a welding current of approximately 165 amps, the base material had been preheated and post weld heated with an electric heater and Mr. Wang Changfa appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Li, stencil 044772 used shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-FCM-Repair-1 to make repairs of OBG segment 14E weld SEG3019B-008. ZPMC QC informed this QA Inspector that critical weld repair document B-CWR-2924 documents this weld had been ultrasonically rejected. This QA Inspector observed a welding current of approximately 165 amps, the base material had been preheated and post weld heated with an electric heater and Mr. Wang Li appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey +8615000026784, who represents the Office of Structural Materials for your project.

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Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer
